

# **BUSHINGS**

- APPARATUS TO AIR
- 200-AMP BUSHING WELLS
- 600-AMP DEADBREAK
- 15, 25 and 35 kV CLASS

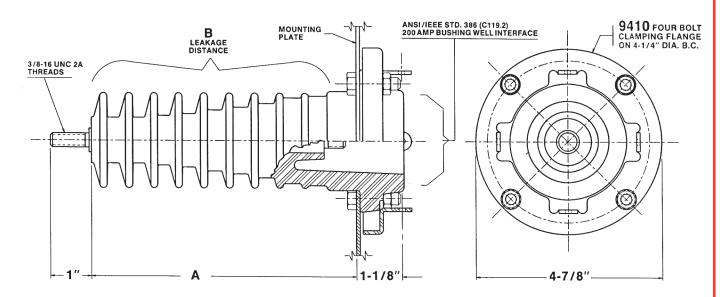


## **APPLICATION**

Lindsey 200 amp and 600 amp bushings are designed for superior performance in contaminated environments. The bushings are externally clamped for use in air-insulated switchgear, capacitor and fuse cabinets through 35 kV. The 200 amp bushing wells are designed to accept standard non-loadbreak bushing inserts, loadbreak bushing inserts and cable lead connectors. The 600 amp apparatus bushings are designed to accept standard elbow connectors and bushing extensions. All bushings meet or surpass the requirements set forth in the latest ANSI/IEEE Std. 386 (C119.2). All bushings are molded from a field proven, high dielectric strength, antitracking formulation of POLYSIL®.

NOVEMBER 1, 1990

## **200-AMP**

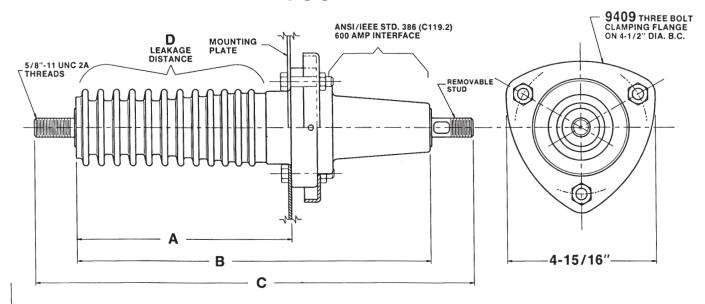


	LINDSEY BUSHING NUMBER		
	9433	9434	9435
INSULATION CLASS (kV)	15	25	35
DIMENSIONS (inches)			
A (Shed Length)	7''	8.5"	10"
B (Leakage Distance)	14"	17"	19.4"
ELECTRICAL RATINGS (ANSI/IEEE 386)			
Phase to Phase (kV)	14.4	26.3	36.6
Phase to Ground (kV)	8.3	15.2	21.1
BIL, 1.2 x 50 Wave (kV)	95	125	150
Withstand (kV):			
60 Hz, 1 min.	34	40	50
DC, 15 min.	53	78	103
Corona Extinction (kV)	11	19	26
Current:			
Continuous (amps)	200	200	200
8 hr. Overload (amps)	300	300	300
Momentary 0.17 sec. (amps)	10,000	10,000	10,000
Momentary 3.0 sec. (amps)	3,500	3,500	3,500
MECHANICAL RATINGS			
Cantilever on Stud (lbs.) Maximum	270	230	200
Axial on Stud (lbs.) Maximum	1,500	1,500	1,500
Torque on Stud (ftlbs.) Maximum	18	18	18
PRODUCTION TESTS			
Corona Extinction (kV)	11	19	26
Withstand, 60 Hz, 1 min. (kV)	34	40	50

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## **600-AMP**



	LINDSEY BUSHING NUMBER		
	9463	9464	9465
INSULATION CLASS (kV)	15	25	35
DIMENSIONS (inches)			
A (Shed Length)	7"	81/2"	10"
B (Overall Bushing)	115/8′′	131/8"	15½"
C (Overall Length)	141/4"	15¾"	181/4"
D (Leakage Distance)	12"	18"	20½"
ELECTRICAL RATINGS (ANSI/IEEE 386)			
Phase to Phase (kV)	14.4	26.3	36.6
Phase to Ground (kV)	8.3	15.2	21.1
BIL, 1.2 x 50 Wave (kV)	95	125	150
Withstand (kV):			
60 Hz, 1 min.	34	40	50
DC, 15 min.	53	78	103
Corona Extinction (kV)	11	19	26
Current:			
Continuous (amps)	600	600	600
8 hr. Overload (amps)	900	900	900
Momentary 0.17 sec. (amps)	25,000	25,000	25,000
Momentary 3.0 sec. (amps)	10,000	10,000	10,000
MECHANICAL RATINGS			
Cantilever on Stud (lbs.) Maximum	400	375	300
Axial on Stud (lbs.) Maximum	3,700	3,700	3,700
Torque on Stud (ftlbs.) Maximum	60	60	60
PRODUCTION TESTS			
Corona Extinction (kV)	11	19	26
Withstand, 60 Hz, 1 min. (kV)	34	40	50

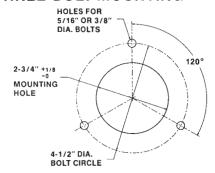
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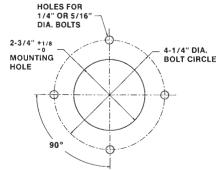
### **INSTALLATION AND MOUNTING**

#### THREE-BOLT MOUNTING



The above mounting panel hole dimensions are required for any 200 or 600 amp bushing using a Lindsey 9409, stainless steel, three-bolt clamping flange. The 9409 flange can be secured with either three 5/16 or 3/8 inch diameter bolts. All bolts should be uniformly tightened.

#### FOUR-BOLT MOUNTING



The above mounting panel hole dimensions are required for any 200 or 600 amp bushing using a Lindsey 9410 stainless steel, fourbolt clamping flange. The 9410 flange can be secured with either four 1/4 or 5/16 inch diameter bolts. All bolts should be uniformly tightened.

### **DESIGN INFORMATION**

Lindsey bushings are molded from POLYSIL, one of the most advanced composite material available to the electric utility industry. POLYSIL material is a carefully selected blend of high purity fine silica aggregates which is bonded together by means of a low viscosity organic resin. This formulation of POLYSIL gives Lindsey bushings the ability to withstand extremely contaminated environments without the tracking problems associated with epoxy materials. All bushing shed designs correspond to the recommendations of IEC Technical Committee No. 36 in their guide for the selection of insulators in polluted conditions.

Refer to Lindsey Manufacturing Company's brochure on "POLYSIL INSULATION" for further details on the properties of POLYSIL.

## **INCLUDED PARTS**

The Lindsey 200 amp bushings are provided with a Lindsey 9411 protective cap which covers the well opening. The Lindsey 600 amp bushings are provided with a Lindsey 9412 protective cap which covers the 600 amp interface and removable stud.

## **ORDERING INFORMATION**

When ordering a Lindsey 200 amp or 600 amp bushing, be sure to specify either three or four bolt flange. Bushings and flanges are normally packed nine per box.

#### **EXAMPLE:**

A 15 kV class, 200 amp bushing, with 9411 protective cap, without any clamping flange.

9433/9409 — A 15 kV class, 200 amp bushing, with 9411 protective cap, with a 9409 three-bolt clamping flange.

9464/9410 — A 25 kV class, 600 amp bushing with 9412 protective cap, with a 9410 four-bolt clamping flange.

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